Extension work

COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS

U. S. Department of Agriculture
and State Agricultural Colleges
Cooperating.

Extension Service, Office of
Cooperative Extension Work,
Washington, D. C.

THE EFFECTIVENESS OF EXTENSION WORK IN REACHING RURAL PEOPLE

A Study of 1,225 Farms in Chenango, Monroe,
and Jefferson Counties, N. Y., 1923-24.

By

M. C. Wilson, In Charge,
Reports and Efficiency Studies,
Office of Cooperative Extension Work,
United States Department of Agriculture,

and

D. J. Crosby, Professor In Charge,
Extension Research, Extension Service,
New York State College of Agriculture,
Ithaca, N. Y.

November 1, 1924

THE EFFECTIVENESS OF EXTENSION WORK IN REACHING RURAL PEOPLE

A Study of 1,225 Farms in Chenango, Monroe, and Jefferson Counties, N. Y., 1923-24

Contents

Acknowledgment

The authors gratefully acknowledge the valuable assistance rendered by M. C. Burritt, Extension Director, J. Coryell, County Agent Leader, Ruby Green Smith, Associate Home Demonstration Leader, and W. J. Wright, Boys' and Girls' Club Leader, in planning the extension study. Those participating in the collection of field data were H. W. Hochbaum, Florence E. Ward, and M. C. Wilson, of the United States Department of Agriculture; M. V. Atwood, Adelaide Barts, F. G. Behrends, Helen Canon, Jay Coryell, D. J. Crosby, P. L. Dunn, E. A. Flansburgh, A. M. Goodman, Caroline Morton, Claribel Nye, J. Oskamp, B. B. Robb, M. Robinson, L. R. Simons, Ruby Green Smith, Mildred Stevens, H. A. Stevenson, C. A. Taylor, W. J. Wright, and P. R. Young, of the New York State College of Agriculture, and Alton Adams, O. G. Agne, Alice C. Fairchild, Irene Field, V. A. Fogg, E. B. Fuller, Edith M. Gordon, E. D. Merrill, and M . E. Skinner, county extension agents.

Scope of Study

The field study described in this circular was conducted by the Office of Cooperative Extension Work, United States Department of Agriculture, and the Extension Service of the New York State College of Agriculture in cooperation for the purpose of determining the extent to which rural people have been influenced by cooperative extension work to modify farm and home practices. Another object of the study was to obtain information regarding the extension methods which had influenced farmers to substitute improved practices for less satisfactory ones.

FARM AND HOME SURVEY OF THE RESULTS OF EXTENSION WORK

Community_____Farm No.____Date_____Renter_____Owner____Phone___
Name_____Address_____Size of farm_____
Type of farming___Hill___Valley_____Kind of road_____
Number in family: Adults___Juniors' ages_____Miles to agent's office__
Member F.B. (pres.)_____(past)_____Member H.B.(pres.)_____(past)____
Connection with extension work_____
Member what farmers' Cooperative ass'ns_____Grange_____
Extension activities on farm_____
In home_____
Other ext. activities attended or participated in_____
Contacts with Co. Agt._____H. D. Agt._____
Club Agt._____Proj. Leaders or Com't'men_____
What specialists_____

Farm and home practices adopted	Methods largely responsible (See list below)	Extension Agts involved			
		C.A.	H.D.A.	Club A	Specl

Abbreviations:- Correspondence (cor.); office calls (o.c.); telephone calls (tel.); farm visits (f.v.); study courses (st.c.); leader training (l.tr.); bulletins (bul.); circular letters (cir.l.); Meetings (mtg.) news service (n.s.); extension schools (e.s.); demonstrations: adult (dem.a.); junior (dem.Jr); indirect contacts (ind.).

Fig. 1 (a) Obverse side of questionnaire card used in collecting data.

Method of Collecting Data

The data were collected by survey parties made up of State supervisory and administrative officers and subject-matter specialists, each contributing from three days to one week without serious interruption to their regular extension duties. The county extension agents collected only sufficient data to become familiar with the methods employed in the field work. Personal calls were made at each farm located in the areas selected and both the farmer and his wife were interviewed.* Comparable information was obtained from each farm** and recorded on questionnaire cards prepared for the purpose. (fig.1)

List below names of members of family who have carried on a junior project

Name	Present age	Years in work	Project
a.			
b.			
c.			

Training after club work	Present occupation	Present contact with extension work	Standing in community
a.			
b.			
c.			

How has your community benefited through extension work?_____

Suggestions for the improvement of the service:_____

Attitude toward extension work_____

If not a F.B. or H.B. member, do you feel free to attend extension meetings?

Why was membership in F.B. or H.B. discontinued?_____

Extension Services of the New York State College of Agriculture and of the United States Department of Agriculture cooperating.

Fig. 1 (b).- Reverse side of questionnaire card used in collecting data.

* In some cases, it was necessary to obtain the information relating to the farm from the woman or the information relating to the home from the man.

** Throughout this circular, the term "farm" refers to the farm and home as an economic unit and to the various individuals comprising the operator's family.

Only actual farms were included, no information being obtained from people living in small villages or those in the open country who did not operate farms. Prior to the field work, information as to the extension activities carried on in the respective areas was prepared by the county extension agents to enable those making the farm calls to ask intelligent questions and to a limited extent to verify the accuracy of the replies received.

Areas Included in Study

Three areas comprising two townships each were selected, all in counties employing a club agent and a home demonstration agent in addition to a county agricultural agent. An effort was made to select areas representative of the extension work within these counties and typical of large agricultural sections of the State.

Columbus and Sherburne townships in Chenango County, Brockport and Spencerport communities* in Monroe County, and Lyme and Cape Vincent townships in Jefferson County were selected. In the Chenango-County area, dairying is the chief source of farm income with cabbage and potatoes important cash crops. The Monroe-County area is an important fruit section with canning crops and dairying important enterprises on some of the farms. In the Jefferson-County area, market hay and oats and dairying are the principal sources of farm income.

Brief History of Extension Work in the Counties Involved

Jefferson was the second county in New York State to employ a county agricultural agent. The appointment of the first agent in this county preceded the passage of the Smith-Lever Act by more than two years. The first county agent was appointed for Monroe County in 1913, one year later, and for Chenango County in 1915, nearly three years later.

Jefferson was the first of the three counties included in this study to employ a home demonstration agent, the appointment being made July 24, 1916. The appointment of similar agents in the other counties followed in 1917 and 1918.

Chenango County appointed a full-time club agent on March 1, 1920.** Monroe and Jefferson Counties did not employ club agents until the spring of 1922. As indicated in Table 1, each of the counties have had three county agents and three home demonstration agents since the beginning of the work.

---

*These two communities include all of the townships of Sweden and Ogden and small adjacent areas in Clarkson and Parma townships.

**A club agent was employed in this county for a few months in 1918.

Table 1. - Names and periods of service of county extension agents employed in Chenango, Monroe, and Jefferson Counties

County agricultural agent	Home demonstration agent	Junior extension agent
	Jefferson County	
F. E. Robertson April 16,1912 - Feb.1,1918	Mrs. Viola Godfrey, July 24,1916-Sept.1,1918	Alton H. Adams, May 1, 1922 - to date
W. I. Roe, Feb. 16,1918-Nov. 30,1923	Doris Schumaker Oct.10,1918-Sept.30,1920	
O. G. Agne, Dec. 1, 1923 - to date	Irene Field, Oct. 1,1920-Sept.15,1923	
	Alice Fairchild, Sept.16,1923 - to date	
	Monroe County	
L. A. Toan, May 1,1913 - Aug. 16,1917	Frances W. Grimes, Dec. 1,1917 - Sept.30,1919	Elmer B. Fuller, May 1, 1922 - to date
D. C. Vann, March 1,1918-Dec.31,1921	Vera D. Fanning, Sept.25,1919-May 31,1923	
E. D. Merrill, Jan. 1, 1922 - to date	Edith M. Gordon, June 1, 1923 - to date	
	Chenango County	
E. P. Smith, Feb.16,1915-Feb.28,1919	Adelaide A. Barts, July 10,1918-Sept.15,1923	C. E. Smith, Feb. 1,1918-June 30,1918
C. E. Smith, March 1,1919-Apr.30,1921	Irene Field, Sept. 16, 1923 - to date	H. L. Case, March 1, 1920 - to date
V. A. Fogg, May 1, 1921 - to date		

1612

In addition, assistant county agents were employed for a total of 42 months in Jefferson County between 1916 and 1922; for 61 months in Monroe County between 1916 and 1924; and for 22 months in Chenango County between 1916 and 1919. Several assistant home demonstration agents were employed in both Monroe and Jefferson Counties for irregular periods varying from one month to a year each between 1918 and 1924. No assistant club agents have been employed, although some of the assistant county agents have devoted a large amount of their time to junior-project work.

Economic Conditions in Areas at Time of Surveys

The field data for the Chenango-County area were collected in October, 1923, when farmers were harvesting cabbage and potatoes. Both of these crops were bringing very low prices at the time. Day help was scarce, and farm women were temporarily assisting in the fields. Because of low prices for market milk, there was an apparent tendency to decrease the number of cows and to increase the small-farm poultry flock to 400 or 500 laying birds. A real-estate movement in that part of the area typical of the so-called "abandoned farms" section of the State had succeeded in selling a considerable number of the back-hill farms to farmers of the Central and Far West who were coming east. Many of these new owners either had already given up their farms or were awaiting a more favorable opportunity to dispose of them.

The field work in Monroe and Jefferson Counties was done in May and June, 1924. At that time apples were being taken out of storage in Monroe County and put through the dryer or made into cider. Apples consigned to the large wholesale markets were bringing little if any return above the storage, freight, and commission charges. The low prices of apples combined with continued high taxes and a season most unfavorable to orchard cultivation and spraying and the sewing of spring grains were responsible for widespread discouragement among the farmers interviewed.

In the Jefferson-County area, although the situation was not so gloomy as in Monroe County, the farmers were also greatly discouraged. Low prices were being received for market milk and oats. The planting season had been such as to greatly lessen the probability of a satisfactory oat crop.

In view of the economic conditions existing at the time in these areas, it is probable that farmers were inclined to give information less favorable to extension work than would have been the case under more favorable economic conditions.

General Information Relating to Farms Included in Study

A total of 1,225 farm records covering 96.2 per cent of all farms in the three areas were obtained. The remaining farms (3.8 per cent) were visited two or three times without finding anyone at home. Of these records, 330 were obtained in Chenango County, 513 in Monroe County, and 382 in Jefferson County. Table 2 shows that 79 per cent of the farms were operated by owners, and 21 per cent by tenants. Sixty-one per cent had telephones.

Table 2. - General information relating to farms included in study

Item	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Farms in areas studied	1,273	100	358	100	522	100	393	100
Farms from which records were obtained	1,225	96.2	330	92	513	98	382	97
Operated by owners	971	79	295	90	435	85	241	63
Operated by tenants	254	21	35	10	78	15	141	37
Having telephones	744	61	197	60	305	60	242	63
Average size (acres)	116	--	119	--	90	--	150	--
On improved road	700	57	115	35	380	74	205	54
On dirt road	525	43	215	65	133	26	177	46
Adults per farm	2.5	--	2.5	--	2.5	--	2.4	--
Farms with children under 21 years	720	59	212	64	279	54	229	60
Children per farm	2.3	--	2.3	--	2.4	--	2.2	--
Distance from county extension office (miles)	18.3	--	16.2	--	16.4	--	22.9	--

Fifty-seven per cent were located on improved roads - concrete, macadam, or gravel - by far the largest proportion of which were in Monroe County.

The number of adults per farm was 2.5. The percentage of farms with children at home under 21 years of age varied from 54 per cent in Monroe County to 64 per cent in Chenango County. In Jefferson County, 60 per cent of the farms had children on them. The average for the three areas was 59 per cent and the average number of children on these farms was 2.3.

The average farm contained 116 acres, varying from 90 acres per farm in Monroe County to 150 acres per farm in Jefferson County. The average distance from the farms studied to the respective county extension offices was 18.3 miles, the greatest distance being 22.9 miles in Jefferson County.

Participation in Extension Work

In New York the county farm and home-bureau association is recognized by law (Laws of New York, 1924, Chap. 248) as a public association to cooperate with the State college in conducting cooperative extension work. Separate membership rolls are maintained in the farm and home departments. The membership fee in the farm-bureau departments included in this study has varied since their first organization from $1.00 to $5.00 per member. The membership fee in the home-bureau departments has always been $1.00 per member.

As indicated in Table 3, the highest percentage of farmers who were members of the farm bureau at the time of this survey was in Chenango County with 42 per cent enrolled, and the lowest in Jefferson County with 10 per cent enrolled. Including former as well as present membership, the percentages in these areas were: Chenango, 67 per cent; Monroe, 71 per cent; and Jefferson, 55 per cent. Of the 1,225 farms from which records were obtained, 28 per cent were members of the farm bureau and an additional 37 per cent had been members at some previous time.

In home-bureau membership, Chenango County led with 19 per cent of the farm homes enrolled, Jefferson and Monroe Counties had 13 per cent and 12 per cent respectively. As in the case of the farm bureau, the highest percentage of former home-bureau members was in Jefferson County. Fourteen per cent of the 1,225 farm homes were enrolled members of the home bureau while an additional 16 per cent had been members at some previous time.

Either the farmer or some member of his family was a local leader or a committeeman, or had been at some previous time in the case of 14 per cent of the farms. The highest percentage was 16 per cent in Chenango County and the lowest was 11 per cent in Jefferson County. On 11 per cent of the farms and 7 per cent of the farm homes, field demonstrations, field meetings, or similar extension activities had been conducted.

Table 3. - Participation in extension work

Item	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Farm records obtained	1,225	96.2	330	92	513	98	382	97
Present members of farm bureau	339	28	140	42	162	32	37	10
Former members of farm bureau	453	37	84	25	198	39	171	45
Present members of home bureau	174	14	63	19	61	12	50	13
Former members of home bureau	191	16	33	10	68	13	90	24
Committeemen or project leaders	167	14	54	16	69	13	44	11
Farms on which extension activities were conducted	131	11	38	12	53	10	40	10
Homes in which extension activities were conducted	92	7	35	11	43	8	14	4
Farms attending or participating in other extension activities	655	53	173	52	249	48	233	61
Farms with boys or girls enrolled in club work	231	19	111	34	26	5	94	25

1812

On 53 per cent of the farms, the farmer or other members of his family had attended or participated in extension activities other than those held on his own farm.

Of the 1,225 farms,231, or 19 per cent, had boys and girls who were enrolled in a junior project at the time of the field study or had carried on such a project previously. This was 32 per cent of the farms having children under 21 years of age and 48 per cent of the farms having children between the ages of 10 and 21 years.

Membership in the Grange and Farmers' Cooperatives

Thirty-five per cent of the farmers included in the study were members of the Grange and 28 per cent were members of the Farm Bureau (table 4). The proportion of farmers who were Grangers was highest in Jefferson County where 51 per cent of the farmers were affiliated with that organization. Of the cooperative associations which have been closely related to the extension programs in the areas involved, the Dairymen's League had the largest membership with the Grange-League Federation Exchange second. The other cooperatives of importance were the Empire-State Potato-Growers' Association and the Canning-Crops Association.

Table 4. - Membership in the Farm Bureau, Grange, and farmers' cooperative associations

Name of organization	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Farm records obtained	1,225	96.2	330	92	513	98	382	97
Farm Bureau	339	28	140	42	162	32	37	10
Grange	430	35	56	17	178	34	196	51
Dairymen's League	394	32	197	60	52	10	145	38
Grange-League Federation Exchange	155	13	25	8	32	6	98	26
Potato-Growers' Association	35	3	35	11	--	--	--	--
Canning-Crops Association	83	7	--	--	83	16	--	--
Maple-Syrup Association	6	0.5	6	2	--	--	--	--
Other associations	64	5	15	4	23	4	26	7

Contacts with Extension Forces

Information was obtained on each farm visited regarding contacts between members of the farm family and representatives of the county and State extension offices, through farm and home visits, office calls, attendance at meetings, correspondence, or otherwise (table 5). Sixty-eight per cent of the farms reported some contact with extension employees. Chenango County was highest with 74 per cent and Monroe County lowest with 62 per cent. Contact with the present county agents or their predecessors was reported by 50 per cent of the farms. Contact with voluntary leaders and committeemen as local representatives of the extension service was reported by 25 per cent of the 1,225 farms.

Farms and Homes Reached by Extension Work

In order to be classified as a farm effectively reached by the extension service, some improved farm or home practices must have been adopted as the result of extension teaching. For example, if the practice of treating oat seed to control smut was being followed on the farm as the result of extension activities, that farm was considered to have been reached by the extension service. Of the 1,225 farms, 1,005, or 82 per cent, reported one or more farm or home practices changed as the result of extension effort (table 6). According to the statements of the farming people themselves, more than four farms out of five had been influenced by extension effort to modify farm and home practices. The average number of farm and home practices changed on these 1,005 farms was 3.6. The highest proportion of farms reached was 88 per cent in Jefferson County where organized extension work had been under way 12 years, and the lowest 78 per cent in Chenango County with 8½ years of resident extension agents. The average number of practices changed per farm, however, was highest in Chenango County, 3.7, and lowest in Jefferson County 3.5.

Seventy-seven per cent of the farms reported an average of 2.8 agricultural practices changed, and 36 per cent of the homes reported an average of 2.1 home practices changed.

Methods and Agencies which Influenced Farms to Change Practices

In connection with each practice reported changed as the result of extension activities, an effort was made to learn which of the methods employed in extension work had in any way been responsible. This was difficult information to get, since in many cases the changed practice had resulted from the cumulative effect of several methods, none of which was outstanding. In other cases, however, the extension method which had influenced the home maker or farmer to adopt an improved practice was definite and clear-cut.

Table 5. - Contact with extension forces

Item	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Farm records obtained	1,225	96.2	330	92	513	98	382	97
Farms reporting contact with some member of the extension service	839	68	244	74	320	62	275	72
Farms reporting contact with county agent	607	50	178	54	225	44	204	53
Farms reporting contact with home demonstration agent	330	27	114	34	89	17	127	33
Farms reporting contact with club agent	298	24	157	48	26	5	115	30
Farms reporting contact with specialists	411	34	101	31	191	37	119	31
Farms reporting contact with local leaders	307	25	87	26	116	23	104	27

Table 6.-- Farms and homes changing practices

Item	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Farm records obtained	1,225	96.2	330	92	513	98	382	97
Farms on which some practice had been changed	1,005	82	259	78	411	80	335	88
Practices changed per farm	3.6	--	3.7	--	3.6	--	3.5	--
Farms on which agricultural practices had been changed	943	77	236	71	395	77	312	82
Agricultural practices changed per farm	2.8	--	2.8	--	3.1	--	2.5	--
Homes in which home-economics practices had been changed	445	36	126	38	116	23	203	53
Home-economics practices changed per home	2.1	--	2.2	--	2.2	--	1.9	--

The means or instruments commonly employed in extension teaching may be roughly classified into three groups: (1) The personal-service group, including farm and home visits, correspondence, office calls, telephone calls, study courses, leader-training meetings, and extension schools, where systematic instruction is given; (2) the propaganda group, including general meetings, bulletins, circular letters, and news service; and (3) the object-lesson group, including adult and junior demonstrations. In addition, there is the indirect spread of practice growing out of propaganda, personal service, and object-lesson methods. A farmer may have copied an improved practice adopted by his neighbor and in turn passed it on to several other farmers, the original extension method involved soon becoming difficult to identify.

Fifty-one per cent of the 1,005 farms that changed practices as a result of extension work reported having been influenced by methods falling in the propaganda group, 50 per cent by the object-lesson group, 21 per cent by the personal-service group, and 71 per cent indirectly (table 7). Forty per cent of the farms changing practices gave credit to the influence of the county agent, 17 per cent to the home demonstration agent, 12 per cent to the club agent, and 19 per cent to the subject-matter specialist. It will be noted that many farms reported methods that fell in two or more groups and also mentioned the influence of more than one kind of extension agent.

Practices Changed

The 1,005 farms effectively reached reported a total of 3,632 improved practices adopted, of which 2,700 related to agriculture, and 932 to home economics. In so far as it was possible to obtain the information, these represent definite practices, such as orchard spraying, treating of oat seed for smut, canning fruits and vegetables, use of dress forms in sewing, and the like. No attempt was made, however, to work out a classification of practices in advance and to fit the changed practices reported by the farmers into such a classification. Practices as reported by the farmers were recorded in as definite a way as possible and these classified later.

A list of the practices adopted by at least 5 per cent of the farms or homes in any of the counties is given in Table 8. The control of oat smut, corn improvement, milk marketing, orchard spraying, and the use of lime are some of the more outstanding agricultural practices adopted. In the home-economics group, canning, sewing, and dress forms head the list. The nature of the agricultural practices adopted naturally corresponds to the types of agriculture in the different areas. The home-economics practices on the other hand are fairly uniform throughout the three areas.

Table 7. - Methods and agencies which influenced farms to change practices*

Item	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Farms on which some practice had been changed -	1,005	82	259	78	411	80	335	88
Farms influenced by propaganda ----------	510	51	154	60	267	65	89	27
Farms influenced by personal service ----------	208	21	67	26	122	30	19	6
Farms influenced by object lessons ----------	504	50	149	57	178	43	177	53
Farms influenced indirectly ----------	709	71	180	70	289	70	240	72
Farms influenced by county agent ----------	397	40	197	76	115	28	85	25
Farms influenced by home demonstration agent --	168	17	91	35	20	5	57	17
Farms influenced by club agent ----------	117	12	92	35	7	2	18	5
Farms influenced by specialists ----------	194	19	67	27	83	20	44	13

*One farm may have been influencedby two or more methods or agencies to adopt the same or different practices.

Table 8. - Improved practices adopted by 5 per cent or more of farms

Practices	Percentage of total farms reporting			
	Entire area	Chenango County	Monroe County	Jefferson County
Agricultural practices:				
Oat smut	24.9	5.4	13.8	56.8
Oats (general)	8.1	--	2.7	21.7
Potato seed	6.4	3.3	13.2	--
Potato-seed treatment	7.7	3.9	14.4	1.8
Potatoes (general)	3.8	--	7.8	1.5
Corn	12.5	17.8	4.1	19.1
Wheat	5.7	--	13.1	--
Clover	4.4	--	1.7	11.8
Field beans	4.5	--	10.9	--
Alfalfa	5.9	5.4	6.0	6.3
Marketing milk	13.9	23.3	--	24.3
Cooperative buying	4.2	5.4	--	8.9
Purebred sires	3.6	3.9	--	8.1
Poultry culling	7.2	9.7	6.0	6.8
Poultry management	3.9	5.4	3.7	2.9
Poultry (general)	4.1	5.1	4.7	2.3
Orchard spraying	24.5	--	58.1	--
Orchard pruning	7.8	--	18.5	--
Tuberculosis eradication	6.8	15.7	5.2	1.3
Dairy feeding	4.8	6.6	4.5	3.6
Lime	13.8	42.1	6.0	--
Fertilizers	5.7	2.1	9.3	3.9
Home-economics practices:				
Canning	23.5	22.4	12.4	39.2
Nutrition	4.6	10.3	1.5	3.9
Food preparation	3.8	6.0	4.1	1.5
Dress forms	6.7	3.6	4.3	12.8
Sewing	9.2	12.1	2.7	15.4
Clothing	4.3	8.2	5.1	--
Home nursing	3.7	2.7	--	9.1

Methods which Influenced Changes in Practices

One or more extension methods were given some credit for obtaining the adoption of each of the 3,632 changed practices reported. Personal-service methods were reported in the case of 13 per cent of the improved practices adopted (table 9). Propaganda methods were reported in nearly 45 per cent of the practices. Object-lesson methods were reported in connection with 27 per cent of the practices changed.

Table 9. - Methods which influenced changes in practices

Item	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Practices changed	3,632	100	952	100	1,487	100	1,193	100
Practices where personal service methods were reported	477	13.1	154	16.2	233	15.7	90	7.5
Times reported:								
Correspondence	107	2.9	40	4.2	45	3.0	22	1.8
Office calls	44	1.2	20	2.1	14	1.0	10	--
Telephone	20	--	3	--	17	1.1	--	--
Farm visits	203	5.6	72	7.6	84	5.6	47	3.9
Study courses	21	--	13	1.4	8	--	--	--
Leader training	91	2.5	39	4.1	36	2.4	16	1.3
Extension schools	89	2.5	13	1.4	67	4.5	9	--
Practices where propaganda methods were reported	1,628	44.8	442	46.4	572	38.5	614	51.5
Times reported:								
Bulletins	503	13.8	131	13.7	262	17.6	110	9.2
Circular letters	108	3.0	14	1.4	90	6.0	4	--
Meetings	819	22.5	250	26.2	187	12.6	382	32.0
News service	580	15.9	213	22.4	132	8.9	235	19.7
Practices where object-lesson methods were reported	972	27.0	285	30.0	343	23.0	344	29.0
Times reported:								
Adult demonstrations	882	24.3	206	21.7	339	22.8	337	28.3
Junior demonstrations	115	3.2	98	10.3	6	--	11	1.0
Practices where indirect influences were reported	1,491	41.0	449	47.2	583	39.2	459	38.5

In Table 10, the individual methods are listed in the order of frequency with which they were reported. Indirect influences head the list, having been reported in connection with 41 per cent, or 2 out of 5, of the practices changed. Adult demonstrations were reported in connection with 24 per cent of the practices or in the case of 1 practice out of 4. Meetings were reported in 1 practice out of every 4½, news service 1 in 6 and bulletins 1 in 7. Farm visits were reported in connection with 1 practice in 18, correspondence 1 in 34, and office calls 1 in 80.

In this comparison of methods, it should be kept in mind that all of the methods listed may not have received equal emphasis from extension workers, and that the differences in emphasis may have been due to reasons such as applicability to the subject matter being extended, length of time method has been employed in extension teaching, and the like, as well as to the comparative results obtained through the use of the different methods.

Table 10. - Relative frequency with which extension methods were reported.

Method	Percentage of total practices changed			
	All farms	Chenango County	Monroe County	Jefferson County
Indirect	41.0	47.2	39.2	38.5
Adult demonstration	24.3	21.7	22.8	28.3
Meetings	22.5	26.2	12.6	32.0
News service	15.9	22.4	8.9	19.7
Bulletins	13.8	13.7	17.6	9.2
Farm visits	5.6	7.6	5.6	3.9
Junior demonstrations	3.2	10.3	0.4	1.0
Circular letters	3.0	1.4	6.0	0.3
Correspondence	2.9	4.2	3.0	1.8
Extension schools	2.5	1.4	4.5	0.8
Leader training	2.5	4.1	2.4	1.3
Office calls	1.2	2.1	1.0	0.9
Study courses	0.6	1.4	0.5	--
Telephone	0.6	0.3	1.1	--

Other Factors Influencing the Adoption of Practices

In addition to the means and agencies employed in extension work which influenced the adoption of improved practices there are other factors such as condition of land occupancy, size of farm, membership in farm and home bureaus, and the like, which doubtless have had an influence also. Some of these factors may help to bring out the differences between the farms adopting improved practices and the farms making no change in practices as the result of extension teaching.

Condition of land occupancy. - Taking the 1,225 farms in the three areas as a unit, 79 per cent were operated by owners, and 21 per cent by tenants (table 11).

The tenants farmed on the average 37 acres more land than the owners. A slightly larger percentage of the tenants than of the owners changed practices as the result of extension effort. The difference, however, is so small as to make condition of land occupancy of small importance in the effective conduct of extension work in these counties.

Table 11. - Condition of land occupancy in relation to farms changing practices.

	Number of farms	Percentage of all farms	Average size	Percentage of farms changing practices			Average number of practices changed
				Agriculture	Home economics	Any	
			Acres				
Owners ----	971	79	109	76	35	81	3.8
Renters ---	254	21	146	79	43	87	3.2

Size of farm. - In order to answer the question as to whether large or small farms are helped most by extension work, the farms have been divided into four groups according to size (table 12). The smallest group averaged 49 acres, the next group 99 acres, the third group 161 acres, and the last group 329 acres. The percentage of farms changing practices does not vary greatly with size of farms. The larger farms are a little more likely to adopt improved agricultural practices, but this does not seem to be true of home practices. The average number of practices changed is somewhat greater on large farms than on small farms.

Table 12. - Relation of size of farms to number of farms changing practices

Size	Number of farms	Average size	Percentage of farms changing practices			Average number of practices changed
			Agriculture	Home economics	Any	
Acres		Acres				
Under 80 ---	413	49	68	53	73	3.2
80 - 119 ---	335	99	79	36	83	3.5
120 - 239 --	403	161	83	44	89	3.8
240 and over	74	329	81	50	86	4.8

Distance from county-extension office.- The farms in each of the three areas averaged nearly the same distance from the county extension office. The variation in distance within the areas was also comparatively small, making it undesirable to attempt to sort the farms according to the distance factor.

Membership in the county-extension association. - With the farm and home-bureau association recognized by State law as a public organization to forward cooperative extension work locally, affiliation with that organization would naturally be closely related with changed farm and home practices (tables 13 and 14). In the case of present farm-bureau members, 92 per cent had changed some agricultural practices as compared with 84 per cent of the former members and 58 per cent of the nonmembers. In the home bureau, 79 per cent of the members had changed some home practices as compared with 70 per cent of the former members and 20 per cent of the nonmembers. The average number of practices changed was nearly twice as great on the farms of members of the extension association as on farms of nonmembers. Changes in practices were more closely related to membership in the home bureau than to membership in the farm bureau.

Another significant fact brought out in tables 13 and 14 is that a large proportion of nonmembers share the benefits of extension work. Sixty-six per cent of the 433 farms operated by nonmembers of the farm bureau and 76 per cent of the 860 farms on which no home-bureau members resided reported the adoption of improved practices in farming or home making or both. This would seem to indicate clearly that extension activities in agriculture and home economics are considered public functions which are available to all.

Table 13. - Relation of membership in farm bureau to number of farms changing practices

Item	Number of farms	Percentage of farms	Percentage members of home bureau	Percentage of farms changing practices			Average number of practices changed
				Agriculture	Home economics	Any	
Members of farm bureau	339	28	27	92	42	95	4.6
Former members of farm bureau	453	37	13	84	40	87	3.6
Nonmembers -	433	36	5	58	29	66	2.6

Table 14. - Relation of membership in home bureau to number of homes changing practices

Item	Number of homes	Percentage of farm homes	Percentage members of farm bureau	Percentage of farms changing practices			Average number of practices changed
				Agriculture	Home economics	Any	
Members of home bureau	174	14	53	90	79	98	5.5
Former members of home bureau	191	16	31	82	70	92	4.5
Nonmembers	860	70	22	73	20	76	2.9

If the farms having changed practices are sorted from those where no practice has been changed, it appears that 32 per cent of the former were farm-bureau members as compared with 7 per cent of the latter (table 15). Seventeen per cent of the former were home-bureau members as compared with only 1 per cent of the latter. This would indicate that membership in the farm and home bureau is more dependent upon adoption of improved practices than is the adoption of new practices dependent upon farm and home-bureau membership.

Table 15. - Relationship of the number of farms changing practices to membership in the farm and home bureaus

Item	Number of farms	Percentage of all farms	Percentage of farms changing practices		Percentage members of-	
			Agriculture	Home economics	Farm bureau	Home bureau
Practices changed	1,005	82	94	44	32	17
No practices changed ---	220	18	--	--	7	1

Nature of roads. - Slightly more than one-half of the farms in the area included in this study were located on improved roads (table 16). A slightly larger proportion of the farms located on improved roads had made contacts with extension workers and had made changes in practices than was true of the farms on unimproved roads. The differences between the two groups of farms are so small, however, that it would seem to make little difference in the effectiveness of extension work whether a farm is located on an improved highway or a few miles off it on a dirt road.

Table 16. - Nature of roads in relation to number of farms changing practices

Item	Number of farms	Percentage of all farms	Percentage of farms having made contacts with-				Percentage of farms changing practices			Average number of practices changed
			County agent	Home demonstration agent	Club agent	Specialist	Agriculture	Home economics	Any	
On improved roads------	700	57	52	26	20	37	79	38	84	3.7
On unimproved roads	525	43	46	28	29	29	75	34	79	3.4

Participation in extension activities. - Of the 1,225 farms reporting, 205 had had some extension activity on the farm or in the home, 481 had been represented in extension activities conducted elsewhere, and 539, or 44 per cent, had never been represented in an activity of the extension service (table 17). Ninety-eight per cent of those in the first group, 91 per cent of the second group, and 67 per cent of the last group reported changed practices. The average number of practices changed was 5.7 where extension activities had been on the farm or in the home, and 3.7 in the case of other farms participating in extension activities, as compared with 2.4 practices where no extension activities had been attended. Participation in extension activities such as attendence at a meeting, participation in an automobile tour, enrollment in a study course, and the like, apparently insures some change of practice in almost every case. The chance for obtaining the adoption of an improved practice would seem to be from 50 to 100 per cent better if the individuals to be reached can be induced to participate in extension activities.

Table 17. - Participation in extension activities as bearing on farms changing practices

Item	Number of farms	Percentage of all farms	Percentage of farms changing practices			Average number of practices changed
			Agriculture	Home economics	Any	
Farms having extension activities on farm or in home ----------	205	17	95	66	98	5.7
Other farms participating in extension activities ----------	481	39	87	43	91	3.7
Farms not participating in extension activities	539	44	61	19	67	2.4

Contact with extension agents and specialists. - Approximately two-thirds of the farms reported contact with one or more members of the extension service staff (table 18). Of this number, 94 per cent reported changed practices as compared to 57 per cent of the farms without such contacts. The farms in the first group adopted four improved practices on the average, while the farms in the second group adopted but 2.1 improved practices. A much larger proportion of the farms making contacts with extension workers were operated by members of the farm and home bureaus. These farms were also somewhat largerin size. There is naturally a very close relationship between participation in extension activities and contact with extension workers (table 17). Participation in extension activities however would seem to be more productive from the standpoint of changed practices than contact with extension workers.

Table 18. - Contact with county extension agents and specialists as related to farms changing practices

Item	Number of farms	Percentage of all farms	Average size	Percentage owners	Percentage members of farm bureau	Percentage members of home bureau	Percentage of farms changing practices			Average number of practices changed
							Agriculture	Home economics	Any	
			Acres							
Farms having made contacts with extension workers ----------	839	68	123	80	36	20	89	47	94	4.0
Farms having made no such contacts ----------	386	32	102	78	10	1	51	13	57	2.1

Junior Extension Work

On 476 of the farms there were children between the ages of 10 and 21 years (table 19). On 231 farms, or 48 per cent of this number, there were 344 boys and girls who were engaged in junior-project work or had been previously so engaged. Of the children of club age (10-20 years), 40 per cent were participating in extension work. The percentage was highest in Chenango County with 71 per cent and lowest in Monroe County with 10 per cent reached. These 344 boys and girls participated in 418 projects for the improvement of farm and home practices. From the standpoint of enrollment, the most popular projects were poultry, calf, garden, sewing, potatoes, and cooking. A list of projects with enrollment in each is given in Table 20.

Table 19. - Farms and children involved in junior-project work

Item	All farms	Chenango County	Monroe County	Jefferson County
Farm records obtained ----------	1,225	330	513	382
Farms with children under 21 years	720	212	279	229
Percentage of all farms --	59	64	54	60
Farms with children 10-20 years of age ----------	476	135	186	155
Number of children 10-20 years of age ----------	857	242	335	280
Farms with boys and girls in junior-project work ----------	231	111	26	94
Percentage of farms with children 10-20 years of age ----------	48	82	14	61
Number of boys and girls in junior-project work ----------	344	171	35	138
Percentage of boys and girls 10-20 years of age--	40	71	10	49

Table 20. - Number of projects carried on by boys and girls

Project	All farms	Chenango County	Monroe County	Jefferson County
Poultry ----------	63	31	5	27
Calf ----------	48	30	6	12
Garden ----------	105	21	9	75
Pig ----------	5	2	2	1
Corn ----------	3	2	-	1
Forestry ----------	6	1	-	5
Clothing ----------	103	57	12	34
Foods ----------	9	4	3	2
Cooking ----------	25	16	3	6
Potatoes ----------	27	26	1	-
Cabbage ----------	4	4	-	-
Vegetables ----------	7	7	-	-
Canning ----------	12	12	-	-
Beans ----------	1	1	-	-
Total ----------	418	214	41	163

Attitude Toward Extension Work

What is the attitude of rural people toward cooperative extension work now that it has become established and there has been ample opportunity for them to judge its worth? In order to answer this question, partially at least, a record was made of the attitude of the farmers and farmers' wives interviewed. In the case of 61 per cent of the farms, the people were favorable, whereas only 6 per cent were opposed (table 21). Twenty per cent were lukewarm, or indifferent, while no attitude was recorded for 13 per cent of the farms.

Out of the 1,225 farms, 77 were reported opposed to extension work. Of these, it is interesting to note, 2 were members of the farm bureau and 50 others were once members. Three were members of the home bureau and 3 others had been members. Thirty-eight had made contacts with extension agents, 28 had participated in extension activities, and 46 reported the adoption of improved practices.

Table 21. - Attitude toward extension work

Item	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Farm records obtained---------	1,225	96.2	330	92	513	98	382	97
Farms on which some practice had been changed--------	1,005	82	259	78	411	80	335	88
Farms favorable to extension work----------	750	61	243	73	287	56	220	57
Farms indifferent to extension work----------	244	20	43	13	110	21	91	24
Farms opposed to extension work-	77	6	18	6	39	7	20	5
Farms for which no attitude was reported---	154	13	26	8	77	16	51	14

Relationship of membership in county-extension association to attitude. - Because of the nature of the farm and home-bureau association in New York, a close relationship between membership in this association and attitude toward extension work would be expected (tables 22 and 23). Eighty-seven per cent of the farm-bureau members, 56 per cent of the former members, and 47 per cent of the nonmembers were favorable to extension work. Eight per cent of the members, 22 per cent of the former members, and 26 per cent of the nonmembers were indifferent. One per cent of the members, 10 per cent of the former members, and 7 per cent of the nonmembers were reported opposed to extension work.

In the case of the home bureau, 86 per cent of the members, 78 per cent of the former members, and 52 per cent of the nonmembers were favorable to the work. Six per cent of the members, 14 per cent of the former members, and 24 per cent of the nonmembers were indifferent to the work. One per cent of the members, 2 per cent of the former members, and 8 per cent of the nonmembers were reported opposed to extension work.

Table 22. - Farm-bureau membership as related to attitude toward extension work*

Item	Number of farms	Percentage of all farms	Percentage favorable	Percentage indifferent	Percentage opposed
All farms:					
Members	339	28	87	8	1
Former members	453	37	56	22	10
Nonmembers	433	35	47	26	7
Chenango County:					
Members	140	42	86	10	1
Former members	84	26	69	13	10
Nonmembers	106	32	59	17	8
Monroe County:					
Members	162	32	88	8	-
Former members	198	38	44	28	13
Nonmembers	153	30	38	27	9
Jefferson County:					
Members	37	10	84	-	3
Former members	171	45	63	21	6
Nonmembers	174	45	54	32	5

*Farms for which no attitude was reported are not included.

Table 23. - Home-bureau membership as related to attitude toward extension work*

Item	Number of farms	Percentage of all farms	Percentage favorable	Percentage indifferent	Percentage opposed.
All farms:					
Members ----------	174	14	86	6	1
Former members ----	191	16	76	15	2
Nonmembers --------	860	70	52	24	8
Chenango County:					
Members ----------	63	19	95	3	-
Former members ----	33	10	91	3	-
Nonmembers---------	234	71	65	17	8
Monroe County:					
Members ----------	61	12	78	6	2
Former members ----	68	13	73	20	2
Nonmembers --------	384	75	48	24	10
Jefferson County:					
Members ----------	50	13	84	8	2
Former members ----	90	24	73	16	2
Nonmembers --------	242	63	48	30	7

*Farms for which no attitude was reported not included.

Changed practices and attitude toward extension work. - Dividing the farms again according to practices changed as the result of extension teaching and no practices changed, it is found that 69 per cent of the farms which reported changed practices were favorable to extension work, as compared with 24 per cent in the case of the farms reporting no practices changed (table 24). Seventeen per cent of the farms reporting changed practices were indifferent and 5 per cent opposed. Where no practices had been changed, 37 per cent were indifferent and 14 per cent opposed.

The attitude of rural people toward extension work would seem to be quite largely dependent upon whether or not they have been effectively reached by extension work.

Some Causes of Withdrawn Membership

The chief reasons given for withdrawal of membership from the county-extension association are shown in Tables 25 and 26. The increase in the membership fee in the farm bureau from $1 or $2 to $5 per year was given as the reason for withdrawal of membership by 51 per cent of the former farm-bureau members. This would indicate that increased dues coming at a time of declining prices of agricultural products was a potent cause of the decline of 57 per cent of farm-bureau membership in the areas studied.

Table 24. - Practices changed and attitude toward extension work*

Item	Number of farms	Percentage of all farms	Percentage favorable	Percentage indifferent	Percentage opposed
All farms:					
Practices changed --	1,005	82	69	17	5
No practices changed-	220	18	24	37	14
Chenango County:					
Practices changed ---	259	78	81	11	4
No practices changed-	71	22	45	21	11
Monroe County:					
Practices changed ---	411	80	67	18	5
No practices changed-	102	20	12	17	35
Jefferson County:					
Practices changed ---	335	88	63	22	4
No practices changed-	47	12	17	38	11

*Farms for which no attitude was reported not included.

Table 25. - Reasons given for withdrawal of membership in farm bureau

Reason	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage.
Former farm-bureau members -------	453	100	84	100	198	100	171	100
Membership withdrawn because of:								
Increased dues ----------	230	50.7	26	30.9	86	43.4	118	69.0
Policy not approved ----------	24	5.3	9	11.9	12	6.1	3	1.8
No benefits ----------	70	15.4	11	13.1	47	23.7	12	7.0
Lost interest ----------	17	3.7	9	10.7	4	2.0	4	2.3
Too busy ----------	7	1.5	-	-	5	2.5	2	1.2
Unable to attend meetings ------	10	2.2	6	7.1	3	1.5	1	.6
Dues not solicited ----------	5	1.1	1	1.2	3	1.5	1	.6
No reason reported ----------	90	19.9	22	26.2	38	19.2	30	17.5

Another important reason given was inability to see any direct benefit coming to the individual because of membership in the extension organization. Some of the other reasons given were, "policy not approved," "lost interest," "inability to attend meetings," and the like.

In the home bureau, the chief reasons given for withdrawal of membership were "inability to attend meetings," by 24 per cent; "too busy," 10 per cent; "lost interest," 6 per cent; and "no direct benefit," 5 per cent. Increase in dues was not a factor, for the size of the membership fee in the home bureau had remained the same since the work started.

Table 26. - Reasons given for withdrawal of membership in home bureau

Item	All farms		Chenango County		Monroe County		Jefferson County	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Former home-bureau members -----	191	100	33	100	68	100	90	100
Membership withdrawn because of:								
Policy not approved ----------	3	1.6	-	-	-	-	3	3.3
No benefits ----------	9	4.7	4	12.1	4	5.9	1	1.1
Lost interest ----------	11	5.8	5	15.1	-	-	6	6.7
Too busy ----------	20	10.5	-	-	14	20.6	6	6.7
Unable to attend meetings ----	46	24.1	7	21.2	8	11.8	31	34.4
Local unit disbanded ----------	23	12.0	-	-	16	23.5	7	7.8
Dues not solicited ----------	1	.5	-	-	-	-	1	1.1
No reasons reported ----------	78	40.8	17	51.5	26	38.2	35	38.9

Attendance of Nonmembers at Extension Meetings

In the Monroe and Jefferson areas, former members and nonmembers were asked if they felt free to attend extension meetings. Eighty per cent of the replies of the 342 former members and nonmembers of the farm bureau were in the affirmative and 20 per cent in the negative. These percentages were also true of the nonmembers of the home bureau. Apparently a large majority of the rural people living in the areas included in this study appreciate that membership in a county-extension association is not a prerequisite to attendance at extension meetings.

Summary

The study includes 1,225 farms or more than 96 per cent of all the farms in three typical farming areas of New York, whose operators supplied representatives of the Federal and State extension offices with information relating to improved farm and home practices adopted as the result of cooperative extension work.

On 82 per cent of these farms, or more than four out of every five, one or more practices were reported changed because of extension effort.

A total of 3,632 different practices were adopted of which 2,700 related to agriculture and 932 to home economics. This is an average of 3.6 practices per farm.

On 45 per cent of the farms, propaganda methods were reported as influencing the adoption of improved practices as compared with 13 per cent influenced by personal-service methods, and 27 per cent by object-lesson methods. Indirect influences in relation to changed practices were reported on 71 per cent of the farms.

There is a wide variation in the frequency with which different methods were reported in connection with the practices changed. This variation, however, is remarkably uniform throughout the three areas. The influence of indirect methods was reported in the case of 41 per cent of all practices changed, adult demonstrations in 24 per cent, meetings in 22 per cent, news service in 15 per cent, and bulletins in connection with 14 per cent of the improved practices adopted.

One-third more of the members than of the nonmembers of the county extension associations adopted improved practices. In addition, the members adopted on the average 100 per cent more improved practices per farm than the nonmembers. On the other hand, 66 per cent of the farms operated by nonmembers adopted improved practices.

One out of three of the operators of farms where improved practices had been adopted was a member of the farm bureau, as compared to 1 out of 14 operators of farms where no practices had been changed. This relationship between changed practices and membership in the county-extension association was even more pronounced in the home bureau.

Extension work seems to have been somewhat more effective in reaching large farms than small farms. Whether the farm was operated by the owner or by a tenant had no important bearing upon the adoption of improved practices.

Approximately one-half more of the participants in extension activities adopted improved practices than of the nonparticipants. The participants also adopted 50 to 100 per cent more improved practices per farm.

Contact with extension agents was associated with changed practices in 94 per cent of the cases, whereas only 57 per cent of those without such contact reported the adoption of improved practices. The persons making contacts with extension agents also adopted 100 per cent more improved practices per farm than did those with no contacts.

Forty per cent of the boys and girls of club age residing on these 1,225 farms were enrolled in junior-project work or had been at some previous time.

More than 3 persons out of every 5 were favorable to extension work. Less than 1 out of 16 was opposed to extension work.

Attitude toward extension work was closely related to status of membership in the county-extension association.

Nearly three times as many of those induced by extension work to adopt improved practices were favorable to extension work as of those who had adopted no improved practice.

Slightly more than one-half of the former members of the farm bureau gave "increased dues" as the reason for withdrawal of membership.

Four out of five of the former members and nonmembers of the county extension association stated that they felt free to attend extension meetings, indicating that extension teaching was largely regarded as a public educational function.